

IN THE CLAIMS

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

Claim 1. (Currently Amended): An image processing apparatus having a plurality of image processing means for performing predetermined image processing on input image data and for outputting processed image data, said image processing apparatus comprising:

creation means for creating packet data by adding to the image data a header in which image processing information is described; and

transfer means for transferring the packet data between said creation means and ~~[[each]]~~ the plurality of image processing means,

wherein ~~[[said]]~~ one of the plurality of image processing means ~~inputs the packet data from said transfer means;~~ performs image processing on the image data included in the packet data transferred by said transfer means on a basis of the image processing information described in the header of the packet data, and recreates packet data by adding the processed image data to a header in which the image processing information is ~~rewritten to the image data~~ after processing, and outputs the recreated packet data to said transfer means described, and

wherein said transfer means transfers the recreated packet data to another of the plurality of image processing means.

Claim 2. (Canceled)

Claim 3. (Currently Amended): An image processing apparatus according to Claim [[2]] 1, wherein the image processing information comprises identification information [[of]] which indicates to which of the plurality of image processing means the packet data is transferred ~~the image processing means~~ and processing content information which indicates content of the image processing to be performed by the image processing means identified by the identification information ~~corresponding to the identification information~~ are described in the header from the beginning thereof in accordance with a sequence in which processing is to be performed.

Claims 4-15. (Canceled)

Claim 16. (Currently Amended): An image processing method which is performed by using a plurality of image processing means for performing predetermined image processing on input image data and for outputting processed image data, said image processing method comprising:

a creating step of creating packet data by adding to the image data a header in which image processing information is described;

a transfer step of transferring the packet data created in said creation step between the plurality of image processing means; and

an image processing step of performing image processing in which [[said]] one of the plurality of image processing ~~sections~~ ~~inputs said packet data,~~ means performs image processing on the image data included in the packet data transferred in said transfer step on a basis of the image processing information described in the header of the packet data, and

recreates packet data by adding the processed image data to a header in which the image processing information is ~~rewritten to the image data after processing, and outputs the recreated packet data~~ described.

wherein said transfer step transfers the recreated packet data to another of the plurality of image processing means.

Claim 17. (Canceled)

Claim 18. (Currently Amended): An image processing method according to Claim ~~[[17]]~~ 16, wherein the image processing information comprises identification information ~~[[of]]~~ which indicates to which of the plurality of image processing means the packet data is transferred ~~the image processing section~~ and processing content information which indicates content of the image processing to be performed by the image processing means identified by the identification information ~~corresponding to the identification information~~ are described in the header from the beginning thereof in accordance with a sequence section in which processing is to be performed.

Claims 19-31. (Canceled)

Claim 32. (New): An image processing apparatus according to claim 3, wherein the plurality of image processing means perform image processing in an order corresponding to the order in the header where the image processing information is described.

Claim 33. (New): An image processing apparatus according to claim 1, wherein one of the plurality of image processing means recreates the header to be added to the processed image data by deleting image processing information corresponding to image processing means which performed image processing.

Claim 34. (New): An image processing apparatus according to claim 32, wherein the image processing information is described from the beginning of the header in accordance with an order in which the image processing is performed.

Claim 35. (New): An image processing method according to claim 18, wherein said image processing step performs image processing in an order corresponding to the order in the header where the image processing information is described.

Claim 36. (New): An image processing method according to claim 16, wherein one of the plurality of image processing means recreates the header to be added to the processed image data by deleting image processing information corresponding to image processing means which performed image processing.

Claim 37. (New): An image processing method according to claim 35, wherein the image processing information is described from the beginning of the header in accordance with an order in which the image processing is performed.

Claim 38. (New): An image processing apparatus for performing image

processing on image data, comprising:

a first image processing unit adapted to perform first image processing on image data;

a second image processing unit adapted to perform second image processing on image data;

a creating unit adapted to create first packet data by adding to the image data a header in which an image processing mode of either the first image processing or the second image processing is at least described;

a transferring unit adapted to transfer the first packet data created by said creating unit to said first image processing unit,

wherein said first image processing unit performs the first image processing on the image data included in the first packet data on a basis of the image processing mode, related to the first image processing and described in the header included in the first packet data, and transfers the image data on which the first image processing is performed to said second image processing unit.

Claim 39. (New): An image processing apparatus according to claim 38, wherein said second image processing unit performs the second image processing on the image data, to which the first image processing is performed on a basis of the image processing mode, related to the second image processing and described in the header included in the first packet data.

Claim 40. (New): An image processing apparatus according to claim 38, wherein said transferring unit transfers the first packet data created by said creating unit in a case where

identification information which identifies said first image processing unit is described in the header.

Claim 41. (New): An image processing apparatus according to claim 40, wherein said first image processing unit transfers the image data on which the first image processing is performed to said second image processing unit in a case where identification information which identifies said second image processing unit is described in the header.

Claim 42. (New): An image processing apparatus according to claim 39, wherein said second image processing unit creates second packet data by adding to the image data, to which the first image processing is performed, a header in which image processing mode of the second image processing is described, and transfers the second packet data to said second image processing unit.

Claim 43. (Newly): An image processing apparatus according to claim 38, wherein the image processing of said first image processing unit and the image processing of said second image processing unit are different.

Claim 44. (New): An image processing apparatus according to claim 38, wherein image processing of either said first image processing unit or said second image processing unit is at least a rotation function, and wherein the image processing mode indicates rotation degree.

Claim 45. (New): An image processing apparatus according to claim 38, wherein the image processing of either said first image processing unit or said second image processing unit is at least a resolution conversion function, and wherein the image processing mode indicates resolution to be converted.

Claim 46. (New): An image processing apparatus according to claim 39, further comprising:

a storage unit adapted to store the packet data created by said creating unit,
wherein said second image processing unit transfer the image data, to which the first image processing and the second image processing are performed, to said storage unit.

Claim 47. (New): An image processing apparatus according to claim 46, further comprising:

an image forming unit adapted to form image on a paper on the basis of the image data stored in said storage unit.

Claim 48. (New): An image processing apparatus according to claim 38, further comprising:

an input unit adapted to input page image data,
wherein the image data is created by dividing the page image data inputted by said input unit.

Claim 49. (New): An image processing apparatus according to claim 38, wherein while said first image processing unit performs first image processing on first image data, said second image processing unit can perform said second image processing on second image data different from said first image data.

Claim 50. (New): An image processing apparatus according to claim 38, further comprising:

a first input unit adapted to input first image data; and

a second input unit adapted to input second image data,

wherein while said first image processing unit performs first image processing on the first image data inputted by said first input unit, said second image processing unit can perform second image processing on the second image data inputted by said second input unit.

Claim 51. (New): An image processing apparatus according to Claim 34, wherein said image processing means comprises:

input means for inputting the packet data in such a manner as to be divided into a header and image data;

header analysis means for analyzing the processing content information described at the beginning of the header input by said input means;

processing means for performing processing on the image data input by said input means on a basis of an analysis result by said header analysis means;

header creation means for creating a new header such that identification information of the image processing means which next performs image processing and

processing content information corresponding to the identification information are located at the beginning of the header; and

output means for newly creating packet data from the image data processed by said image processing means and from the header created by said header creation means and for outputting the newly created packet data.

Claim 52. (New): An image processing method according to Claim 37, wherein said image processing step comprises the steps of:

inputting the packet data in such a manner that the data is divided into a header and image data;

analyzing the processing content information described at the beginning of the header input in said input step;

performing processing on the image data input in said input step on a basis of an analysis result in said header analysis step;

creating a new header such that identification information of the image processing section which next performs image processing, and processing content information corresponding to the identification information are located at the beginning of the header; and

newly creating packet data from the image data processed in said processing step and the header created in said header creation step and for outputting the newly created packet data from the image processing section.